

ISS Utilization Facilities Assessment

Facilities Data Process

- **Approach reviewed with Pete Allen – Red Team II**
- **Process Managed and Data Groundrules Established by Code JX – Al Johnson**
 - Action to Facility Manager at Each Center
 - Kick-off with ViTS Conference to Assure Consistency
- **Reviewed/Supported by Blue Team**
 - Mary Hall, Lead
 - Barbara Kreykenbohm, Coordinator with Code JX
- **Format/process in place for additional data if needed for implementation phase**

Overview

- **Facilities at ARC, GRC, JPL, JSC including Ellington Field, KSC including DFRC, and MSFC**
- **No Facilities at LaRC or GSFC**
- **Usage Categories**
 - Office
 - Laboratory
 - Technical Space
 - Conference Space
 - Shop-Industrial Space
 - Storage Space
 - Miscellaneous
- **All Centers Totals (sq. ft.)***

Total	Office	Lab	Technical	Conf.	Shop	Storage	Misc.
546627	212634	129470	72089	23880	80587	5512	5564

* JPL data is included in the Total square footage, but is not included in all individual category totals

ARC Facilities & Usage

<u>Facility</u>	<u>Area (sq ft)</u>
• Bioscience Laboratory	17,023
• Life Science Lab High Bay	10,620
• Airborne Miss. & Appl. Bldg.	15,210
• Life Sciences Flight Exp	7,662
• Space Projects Facility	11,616
• Biomedical Research Facility	9,449
• Office Trailer File# T-020	900
• Office Trailer File# T-026	1,030
• Modular Building File# T-041	9,689

Total	Office	Lab	Technical	Conf.	Shop	Storage	Misc.
83,199	38,817	19,104	2,631	19,104	0	4,473	2,132

GRC Facilities & Usage

<u>Facility</u>	<u>Area (sq ft)</u>
• Administration Building	873
• Flight Research Building	42,000
• Engine Research Building	624
• Electric Propulsion Research Building	726
• Structural Dynamics Lab, Rm 113	1416
• Instrument Research Laboratory	12,477
• Operations/Integration Building	300
• Space Experiments Laboratory	8,949
• Electric Power Laboratory	18,817
• Power Systems Facility	9,766
• Power Systems Facility Annex	900

Total	Office	Lab	Technical	Conf.	Shop	Storage	Misc.
96,848	13,650	37,181	2,322	0	43,324	371	0

JPL Facilities & Usage

<u>Facility</u>	<u>Area (sq ft)</u>
• Cryogenics Operations Research & Applications Lab	3,140
• Fabrication Shop	447
• Materials Storage	575
• Environmental Laboratory	not provided
• Fabrication Shop	487
• Spacecraft Assembly Facility (EMC Lab.)	1,294
• Laser Stabilization and PARCS Development	4,710
• Frequency Standards Lab and LCAP future experiment development labs	4,338
• Assembly Handling/Shipping Equipment Facility	900
• Microdevices Lab	888
• Refurbishment and BEST Laboratory	359

Total	Office	Lab	Technical	Conf.	Shop	Storage	Misc.
17,138	942	-	-	-	-	-	-

JSC Facilities & Usage

<u>Facility</u>	<u>Area (sq ft)</u>
• Flight Operations Facility	6,000
• Jake Garn Simulator & Training Facility*	7,500
• Crew Systems Laboratory	200
• Photographic Technology Laboratory*	865
• Systems Integration Facility*	980
• Mission Control Center - Houston	3,000
• Bioengineering and Test Support Fac	1,500
• Life Sciences Laboratory	12,500
• Human Research Facility*	1,200
• Medical Data Support Facility*	1,300
• Sonny Carter Training Facility (Ellington Field)*	8,990

** Less than 20% operating schedule for ISS Utilization*

Total	Office	Lab	Technical	Conf.	Shop	Storage	Misc.
44,035	10,125	23,660	10,025	0	0	225	0

KSC Facilities & Usage

<u>Facility</u>	<u>Area (sq ft)</u>
• Hangar L**	17,448
• Operations Equip. Storage Bldg Little L**	3,410
• Temporary Building No. 70 (4T)**	2,493
• Operations & Checkout Building	12,443
• Space Station Processing Facility	35,520
• DFRC/Payload Processing Facility Office Area*	3,600
• DFRC/Payload Processing Facility*	4,000
• Space Experiment Research & Processing Laboratory (SERPL)***	

* *During Mission only*

** *These facilities will be decommissioned at the end of FY03 when SERPL is complete*

*** *State owned facility used by Flight and Ground Research Customers (mostly Fundamental Biology and Advanced Human Support Technology), Florida University Researchers and Commercial Customers starting in FY04. NASA has priority use of the facility.*

Total	Office	Lab	Technical	Conf.	Shop	Storage	Misc.
78,914	18,167	33,390	22,052	1,430	0	443	3,432

MSFC Facilities & Usage

<u>Facility</u>	<u>Area (sq ft)</u>
• Office Building	15,966
• Space Science Laboratory	900
• Microgravity Development Center	21,982
• Office & Engineering Bldg	72,897
• Computer Facility	50,044
• Engineering & Develop Lab	10,000
• Space Station Development Lab	44,704

Total	Office	Lab	Technical	Conf.	Shop	Storage	Misc.
216,493	131,875	16,135	35,059	1,673	31,751	0	0

Scheduled Renovations

Date for Scheduled Major Renovations:

- **2004: JSC Life Sciences Laboratory**
 - 50% Usage for ISS Utilization
- **2005: MSFC Bldg. 4610 Office & Engineering Bldg.**
 - 63% Usage for ISS Utilization
- **2006: MSFC Space Sciences Laboratory**
 - 1% Usage for ISS Utilization

Facilities Dedicated to ISS Utilization

(85% or greater usage)

<u>Percent</u>	<u>Location</u>	<u>Facility#</u>	<u>Bldg#</u>	<u>Facility Name</u>
85%	ARC	3916	N240A	LIFE SCIENCES FLIGHT EXP
85%	ARC	3944	N261	BIOMEDICAL RESEARCH FACILITY
90%	ARC	3973	T6-B	OFFICE TRAILER FILE# T-020
90%	ARC	3979	T6-D	OFFICE TRAILER FILE# T-026
90%	ARC	3992	T20-G	MODULAR BUILDING FILE# T-041
100%	KSC	9723	TRM049**	TEMPORARY BLDG #70 (4t)
100%	KSC/DFRC		4844	PAYLOAD PROCESSING FACILITY OFF.
100%	KSC/DFRC		4867	PAYLOAD PROCESSING FACILITY

*** This facility will be decommissioned at the end of FY03 when SERPL is complete*

Functional Implications

- S/T/C Leadership
 - No NASA facilities primarily dedicated to ISS Utilization functions will be affected by transition to an Institute in Phase 1.
 - Certain multi-use areas within NASA facilities (i.e. office space, conference rooms, etc.) may be affected by ISS Utilization functions designated to transition to an Institute in Phase 1.
- Utilization Management
 - If NASA determines that Utilization Management functions transition during a Phase 2 activity, dedicated and multi-purpose NASA facilities will be affected.
 - The Reinvent study could alter the Code JX facilities data.
 - Facility implications should be addressed as part of the Reinvent process.

Summary Facility Recommendations

- For Phase 1:
 - The RFI should seek input from potential offerors regarding use of NASA facilities.
 - If determined to be in the best interest of the government, on-site office space could be included in the RFP as government-furnished facilities.
- For Phase 2:
 - Facilities data should be an integral part of NASA's decision for Phase 2.